

### **Remarks**

In the Office Action mailed April 23, 2002, Claims 6, 7 and 9-12 are rejected under 35 U.S.C. §102(b), as being anticipated by WO 96/02323A1 in the name of Müller et al. (translated as U.S. Pat. No. 5,859,265). Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over WO 96/02323A1 in the name of Müller et al. as applied to Claim 6 and further in view of U.S. Pat. No. 6,031,116 issued to Bowman et al. Claims 7-9 and 11 are rejected under 35 U.S.C. §112, second paragraph as being indefinite. Claims 6 and 12 are objected to for informalities. The Examiner made those rejections FINAL. Applicants filed an appeal to the Board of Patent Appeals and Interferences on October 22, 2002. The instant response is filed in conjunction with a Request for Continued Examination.

#### **I. Rejections under 35 U.S.C. §112, second paragraph**

Claims 7-9 and 11 are rejected under 35 U.S.C. §112, second paragraph as being indefinite. The Examiner contending that the phrase "was produced" makes Claim 7 unclear and that Claims 7-9 and 11 appear to recited use limitations rather than positively recited process steps.

Applicants have amended Claim 7 to remove the word "was" preceding "produced" and added the phrase --wherein the catalyst comprises a catalyst-- before "produced" to clarify that Claim 7 is directed to regenerating a particular type of catalyst, i.e., one made by a deposition-precipitation method.

Claims 7-9, as amended, further limit the catalyst, water and dilute hydrogen peroxide solution respectively.

Claim 11, as amended, is directed to an improved process for oxidation of an unsaturated hydrocarbon.

Applicants submit that because of the above-detailed changes, the claims are in compliance with 35 U.S.C. §112, second paragraph, and respectfully request the Examiner reconsider and reverse his rejection of Claims 7-9 and 11 under 35 U.S.C. §112, first paragraph, as being indefinite.

## **II. Rejections under 35 U.S.C. §102(b)**

Claims 6, 7 and 9-12 are rejected under 35 U.S.C. §102(b), as being anticipated by WO 96/02323A1 in the name of Müller et al. (translated as U.S. Pat. No. 5,859,265). Claim 12 has been cancelled, thus obviating any grounds for rejection based upon that claim. Applicants respectfully disagree with the Examiner.

Applicants remind the Examiner that as stated in MPEP §2131, to anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Applicants respectfully contend that the Examiner has failed to point to where Müller et al. does so. Particularly, the Examiner has failed to point to where Müller et al. discloses or suggests the instantly claimed method of regenerating the claimed catalyst. The catalyst of Müller et al. as stated at col. 1, lines 7-11 is, "... a novel oxidation catalyst based on a titanium or vanadium silicalite having a zeolite structure and containing platinum metals... ." (emphasis added) The Examiner contends, at page 6, first full paragraph of the Final Office Action mailed April 23, 2002, and without citing a reference in support therefor, that titanium silicalite is "composed of titanium dioxide and silicon dioxide". Therefore, following the Examiner's reasoning, one embodiment of the catalyst of Müller et al. is based on titanium dioxide and silicon dioxide containing one or more platinum metals and optionally, gold. In contradistinction, the instantly claimed catalyst is based on a titanium dioxide or a hydrous titanium dioxide support coated with gold particles, wherein the catalyst has been used for oxidation of unsaturated hydrocarbons in a gas phase.

Therefore, Applicants respectfully request the Examiner reconsider and reverse his rejection of Claims 6, 7 and 9-11 under 35 U.S.C. §102(b), as being anticipated by WO 96/02323A1 in the name of Müller et al. (translated as U.S. Pat. No. 5,859,265).

### **III. Rejections under 35 U.S.C. §103(a)**

Claim 8 is rejected under 35 U.S.C. §103(a) as being unpatentable over WO 96/02323A1 in the name of Müller et al. as applied to Claim 6 and further in view of U.S. Pat. No. 6,031,116 issued to Bowman et al. Applicants respectfully disagree with the Examiner's contention regarding the cited art.

As stated in MPEP §2143.01, obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, citing *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed Cir 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed Cir. 1992).

Clearly, there is no such teaching, suggestion or motivation shown in the references in this case. Applicants' comments with respect to the rejection above are equally applicable to the present rejection. Müller et al. does not disclose or suggest the instantly claimed invention. Further, the Examiner has failed to point to where Bowman et al. adds the missing teaching or suggestion to lead one of ordinary skill in the art to the instantly claimed invention.

Therefore, Applicants contend that nothing in the teaching of Müller et al., alone or in combination with Bowman et al., would lead one of ordinary skill to the instantly claimed invention and respectfully request the Examiner reconsider and reverse his rejection of Claim 8 under 35 U.S.C. §103(a) as being unpatentable over U.S. Pat. No WO 96/02323A1 in the name of Müller et al. as applied to Claim 6 and further in view of U.S. Pat. No. 6,031,116 issued to Bowman et al.

### **IV. Claim objections**

Claims 6 and 12 are objected to for informalities. The Examiner contending that a grammatical correction is required for claim language regarding the catalyst. Applicants have amended Claim 6 to clarify that claim by removing the problematic language. Claim 12 has been cancelled thus obviating any grounds for rejection based upon that claim. Therefore, Applicants request the Examiner withdraw his objection to Claim 6.

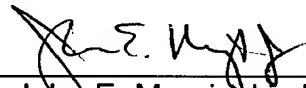
### Conclusion

The specification has been amended to add section headings. Applicants have cancelled Claim 12, have amended Claims 6-9 and 11 and have added Claim 13. Applicants contend that such amendments add no new matter and find support in the specification. Attached hereto, please find pages captioned "Version with markings to show changes made."

Applicants submit that the instant application is in condition for allowance. Accordingly, early examination and a Notice of Allowance are respectfully requested for Claims 6-11 and 13. If the Examiner is of the opinion that the instant application is in condition for other than allowance, he is requested to contact the Applicants' Attorney at the telephone number given below so that additional changes may be discussed.

Respectfully submitted,

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**Version with markings to show changes made.**

**In the specification:**

The specification has been amended to add section headings thereto.

**In the claims:**

Claim 12 has been cancelled.

The claims have been amended as follows:

6. (Twice Amended) A method for regenerating catalytic activity of a catalyst ~~composed of a titanium dioxide or hydrous titanium dioxide support coated with gold particles that has been used for oxidation of unsaturated hydrocarbons in the gas phase comprising~~ contacting the catalyst with one of water, a dilute acid or and a dilute hydrogen peroxide solution,  
wherein the catalyst is based on a titanium dioxide or a hydrous titanium dioxide support coated with gold particles and wherein the catalyst has been used for oxidation of unsaturated hydrocarbons in a gas phase.
7. (Amended) The method of Claim 6, ~~wherein in which the catalyst being regenerated was~~comprises a catalyst produced by a deposition-precipitation method.
8. (Amended) The method of Claim 6, ~~in which the catalyst being regenerated is contacted with~~wherein the water comprises steam under pressure.
9. (Amended) The method of Claim 6, ~~in which the catalyst being regenerated is contacted with an aqueous wherein the dilute~~ hydrogen peroxide solution ~~having has~~ a concentration less than or equal to 10 wt.% based on the total weight of the catalyst.
11. (Amended) A ~~In a~~ process for ~~the~~ oxidation of an unsaturated hydrocarbons with molecular oxygen in the presence of hydrogen in the gas phase, the improvement comprising performing the oxidation in the presence of the regenerated catalyst of Claim 10.

As explicitly set forth in **37 C.F.R. Section 1.121(c)(1)(ii)**, **last sentence**, a marked up version does not have to be supplied for an added claim or a cancelled claim as it is sufficient to state that a particular claim has been added, or cancelled, and this has been so stated in the Amendment.

In particular, in the instant application, Claim 12 has been cancelled and Claim 13 has been added.